

**DOD MODEL PROGRAM
FOR
MAINTENANCE MANUALS**

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INTRODUCTION

The Department of Defense (DOD) Commercial Airlift Division is mandated by public law and DOD directive to continuously monitor and oversee commercial air carriers doing business for the DOD. The DOD Commercial Airlift Division accomplishes this responsibility through on-site surveys and tabletop performance evaluations. The benchmark used during these evaluations is the DOD Commercial Air Transportation Quality and Safety Requirements. The DOD has compiled characteristics of air carrier programs that stand out as models for the industry. Each model represents a specific requirement that the DOD measures during evaluations.

Here we describe what we believe is a model or ideal maintenance management program within an air carrier maintenance complex. Such a program is not mandated by DOD, but represents a compilation of the most effective management efforts we have seen.

An effective maintenance manuals program contains the following elements:

- A. Procedures and policies.
- B. Manual revision and distribution procedures.
- C. Availability.

A. PROCEDURES AND POLICIES

Company maintenance manuals comprehensively detail maintenance procedures and policies. Manuals:

1. Define terms/acronyms that are unique to the company's operation.
2. Describe the format and proper use of all maintenance forms.
3. Provide detailed procedures for utilizing contract maintenance vendors.
4. Define the programs covering inspection, maintenance, preventive maintenance, and alterations. It ensures:
 - a. All maintenance performed is in accordance with the certificate holder's manual and approved maintenance program.
 - b. All aircraft returned/released to service are airworthy and properly maintained.
5. Describe duties and responsibilities of key positions in all functional areas.
6. Provide an organizational chart that illustrates:
 - a. Lines of authority.
 - b. Maintenance organization and support structure.
 - c. Separation of maintenance production and inspection organizations.
7. Detail the company's maintenance training program, including:
 - a. Description of how and when maintenance personnel will be trained (including indoctrination).
 - b. Process for documentation of all training (formal, on-the-job, and recurrent).
 - c. Methods and frequencies of all recurrent training.
8. Define procedures for reporting and correcting aircraft discrepancies, ensuring:
 - a. The recording of all mechanical irregularities in the aircraft maintenance log.

b. Accurate documentation of all routine/non-routine maintenance actions taken, including verification that:

(1) Work was performed IAW manual requirements.

(2) All items requiring inspection were inspected.

(3) No known condition exists that would make the aircraft non-airworthy.

9. Specify procedures ensuring only proper parts and materials are used, including:

a. Receiving inspection.

b. Shelf-life.

c. Preservation of parts.

d. Parts identification system.

e. Disposition of failed/life-limited parts.

f. Quarantine procedures for parts where serviceability is in question.

10. Provide procedures outlining internal and vendor audit requirements, and a method for monitoring fleet performance.

11. Identify maintenance actions requiring test flights and test flight preparation procedures.

12. Detail procedures for conducting ferry flights, to include the required coordination process, management approving authority, and aircraft preparation procedures.

13. List procedures to report the occurrence/detection of each failure, malfunction or defect of mechanical reliability (reliability reports), flight interruptions, unscheduled change of aircraft en route, or unscheduled stops/diversions caused by mechanical difficulties (Mechanical Interruption Summary Report).

14. Specifically address aircraft ground handling procedures such as:

- a. Parking aircraft in high winds.
- b. Short and long-term storage.
- c. Seasonal operation.
- d. Towing.
- e. Emergency procedures.
- f. Run-up/taxi personnel authorizations.

15. Establish policies for specialized programs, such as:

- a. Category II/III landing systems.
- b. Extended Range Operation with Two-Engine Aircraft (ETOPs).
- c. Reduced Vertical Separation Minimums (RVSM).

B. MANUAL REVISION AND DISTRIBUTION PROCEDURES

Manual revision and distribution procedures are well defined, and provide a positive method of tracking revision status; ensuring only current manuals are available for use.

- 1. Distribution procedures are sufficient to ensure that all manual holders receive updates and temporary revisions in a timely manner.
- 2. Manuals are easy to revise, have the date of the last revision on each page, have a method to readily identify changed portions (e.g., revision bar), and include a list of effective pages covering all revisions.
- 3. A revision tracking system provides a means for publications personnel and management to verify all manual holders have received required revisions. This can be accomplished by return receipts, email, automation, etc.

C. AVAILABILITY

Sufficient number of company manuals and technical reference materials are available for use by all company and contract maintenance personnel.

1. Adequate numbers of manuals are provided for use by mechanics.
2. When applicable, computers and reader/printers are serviceable and conveniently located to provide maintenance personnel with technical information.
3. Temporary revision files are complete, in good condition, and are conveniently located near printer/readers.
4. Procedures are in place to control printed pages of on-line manuals.

SUMMARY

The DOD believes maintenance manual programs built around the above characteristics will benefit the air carrier in several ways. They not only improve safety, but also enhance air carrier image, improve regulatory compliance, and promote air carrier efficiency.

Air carriers desiring copies of DOD model programs should access the DOD Commercial Airlift Division public website at <http://www.amc.af.mil/library/businesscustomers.asp> or contact our office at Scott AFB IL, (618) 229-4801.